

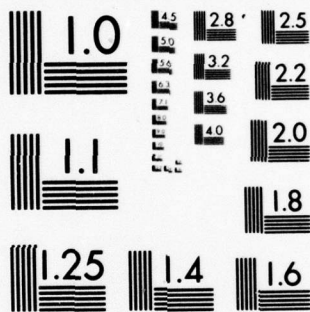
ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2  
12824C LANCE, MISSILE NUMBER 4661, ROUND NUMBER 324 NPL.(U)  
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DR-985  
March 1979

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**(10) LEVEL II**

METEOROLOGICAL DATA REPORT

12824C LANCE  
MISSILE NO. 4661, ROUND NO. 324 NPL  
(15 DECEMBER 1978)

BY

WSMR METEOROLOGICAL TEAM

AD A067761

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ATMOSPHERIC SCIENCES LABORATORY  
WHITE SANDS MISSILE RANGE, NEW MEXICO

**ECOM**

UNITED STATES ARMY ELECTRONICS COMMAND

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## INTRODUCTION

(AB) 12824 Lance, Missile Number 4661, Round Number 324 NPL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1002 HRS MST, 15 December 1978. The scheduled launched time was 1000 HRS MST.

## DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

The data are presented in the following tabulations:

ELEVATION	3989.47	FEET/MSL
PRESSURE	883.5	MBS
TEMPERATURE	+5.2	°C
RELATIVE HUMIDITY	66	%
DEW POINT	-0.7	°C
DENSITY	1101	GM/M <sup>3</sup>
WIND SPEED	02	MPH
WIND DIRECTION	270	DEGREES
CLOUD COVER	3	ci

TABLE I. SURFACE OBSERVATION TAKEN AT LC-33  
1002 HRS MST/15 DECEMBER 1978.

ACCESSION for	
NTIS	White Section <input checked="" type="checkbox"/>
DDC	Buff Section <input type="checkbox"/>
UNANNOUNCED	<input type="checkbox"/>
JUSTIFICATION _____	
BY _____	
DISTRIBUTION/AVAILABILITY CODES	
Dist. <input type="checkbox"/> <del>AVAIL</del> and/or <input type="checkbox"/> <del>SPECIAL</del>	
A	23



TIME SEC	DIRECTION (DEGREES)	SPEED (MPH)
-30	002	3
-29	002	3
-28	002	2
-27	002	2
-26	002	2
-25	002	2
-24	002	2
-23	002	2
-22	002	2
-21	002	2
-20	002	2
-19	002	2
-18	002	2
-17	002	2
-16	002	2
-15	002	2
-14	002	2
-13	002	2
-12	002	2
-11	002	2
-10	002	2
-9	002	2
-8	002	2
-7	002	2

TIME SEC	DIRECTION (DEGREES)	SPEED (MPH)
-6	002	2
-5	002	2
-4	002	2
-3	002	2
-2	002	2
-1	002	2
-0	002	2
+1	002	2
+2	002	3
+3	002	3
+4	002	3
+5	001	2
+6	001	2
+7	001	2
+8	001	2
+9	001	2
+10	001	2

TABLE II. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 1  
RELEASED FROM LC-33 AT 1002 HRS MST/15 DECEMBER 1978  
12824 LANCE/ROUND NUMBER 324 NPL

WSTM COORDINATES: X = 485,874.29 Y = 185,958.90 Z = 4018.74

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

TIME SEC	DIRECTION (DEGREES)	SPEED (MPH)
-30	020	3
-29	020	2
-28	020	2
-27	020	2
-26	020	2
-25	030	2
-24	030	2
-23	030	2
-22	030	2
-21	030	2
-20	030	2
-19	020	2
-18	020	2
-17	020	3
-16	020	3
-15	020	3
-14	020	3
-13	020	3
-12	020	3
-11	020	2
-10	020	2
-9	020	2
-8	020	2

TIME SEC	DIRECTION (DEGREES)	SPEED (MPH)
-7	020	2
-6	020	2
-5	020	2
-4	020	2
-3	020	2
-2	020	2
-1	020	2
-0	020	2
+1	020	2
+2	020	2
+3	020	2
+4	020	2
+5	020	2
+6	020	2
+7	020	2
+8	020	2
+9	020	2
+10	020	2

TABLE III. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 2  
RELEASED FROM LC-33 AT 1003 HRS MST/15 DECEMBER 1978  
12824 LANCE/ROUND NUMBER 324 NPL

WSTM COORDINATES: X = 485,874.93 Y = 186,012.00 Z = 4,033.57

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

TIME SEC	DIRECTION (DEGREES)	SPEED (MPH)
-30	164	01
-29	164	01
-28	C	C
-27	C	C
-26	C	C
-25	C	C
-24	C	C
-23	C	C
-22	164	01
-21	164	01
-20	164	01
-19	164	01
-18	164	01
-17	164	01
-16	164	01
-15	164	01
-14	164	01
-13	164	01
-12	164	01
-11	164	01
-10	164	01
-9	164	01
-8	164	01

TIME SEC	DIRECTION (DEGREES)	SPEED (MPH)
-7	164	01
-6	164	01
-5	164	01
-4	164	01
-3	164	01
-2	164	01
-1	164	01
-0	164	01
+1	C	C
+2	C	C
+3	C	C
+4	164	01
+5	164	01
+6	164	01
+7	C	C
+8	C	C
+9	C	C
+10	C	C

TABLE IV. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 3  
RELEASED FROM LC-33 AT 1003 HRS MST/15 DECEMBER 1978  
12824 LANCE/ROUND NUMBER 324 NPL

WSTM COORDINATES: X = 485,877.29 Y = 186,116.06 Z = 4,063.92

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.



HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	CALM	
100	CALM	
200	CALM	
300	041	0.1
400	036	0.2
500	048	2.5
600	060	2.5
700	030	2.0
800	025	1.5
900	021	2.0
1000	041	2.5
1100	045	2.0
1200	048	1.0
1300	043	2.0
1400	037	2.5
1500	024	3.0
1600	011	3.5
1700	010	3.5
1800	009	3.0
1900	011	2.5
2000	013	2.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	342	3.0
2200	311	3.5
2300	300	7.0
2400	288	10.0
2500	286	13.0
2600	284	15.5
2700	285	15.5
2800	285	15.5
2900	289	15.5
3000	293	15.0
3100	293	15.0
3200	292	15.0
3300	289	15.5
3400	285	15.5
3500	286	17.0
3600	286	18.0
3700	289	19.0
3800	292	20.0
3900	295	20.0
4000	298	19.5
4100	298	18.0

TABLE V. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1  
RELEASED FROM LC-33, AT 0949 HRS MST/15 DECEMBER 1978  
12824 LANCE, MISSILE NO. 4661, ROUND NO. 324 NPL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,037.24      Y = 182,350.16      Z = 2,977.30

APPROXIMATELY: 1/2 MILE SOUTH OF LAUNCHER

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	298	16.5
4300	299	17.0
4400	300	17.5
4500	301	18.5
4600	302	19.0
4700	311	19.5
4800	299	19.5
4900	299	19.5
5000	298	19.0
5100	298	20.0
5200	298	21.0
5300	298	22.0
5400	298	22.5
5500	298	23.5
5600	297	24.0
5700	294	25.0
5800	291	26.0
5900	291	26.0
6000	290	26.0
6100	287	27.0
6200	284	27.5
6300	280	28.0
6400	276	28.0
6500	274	28.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6600	272	28.0
6700	271	28.5
6800	269	29.0
6900	270	28.5
7000	271	27.5
7100	269	27.5
7200	267	27.5
7300	262	29.0
7400	257	30.0
7500	257	29.5
7600	257	29.0
7700	257	29.5
7800	256	29.5
7900		
8000		
8100		
8200		
8300		
8400		
8500		
8600		
8700		
8800		
8900		

TABLE V. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.



HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	270	2.0
100	315	1.5
200	360	1.0
300	003	3.0
400	006	5.0
500	003	3.0
600	360	1.0
700	006	2.0
800	011	2.5
900	025	3.5
1000	039	4.5
1100	065	3.5
1200	090	2.5
1300	095	2.0
1400	100	1.5
1500	061	2.0
1600	022	2.5
1700	355	3.0
1800	327	3.0
1900	310	2.5
2000	293	2.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	289	2.5
2200	284	2.5
2300	295	5.5
2400	306	8.5
2500	296	11.0
2600	286	13.5
2700	285	16.0
2800	283	18.5
2900	287	17.0
3000	290	15.5
3100	289	15.5
3200	288	15.0
3300	286	15.0
3400	283	14.5
3500	283	15.5
3600	282	16.5
3700	287	18.0
3800	291	19.0
3900	291	19.5
4000	291	20.0
4100	292	19.0

TABLE VI. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2  
RELEASED FROM LC-33, AT 1002 HRS MST/15 DECEMBER 1978  
12824 LANCE, MISSILE NO. 4661, ROUND NO. 324 NPL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,037.24      Y = 182,350.16      Z = 3,977.30

APPROXIMATELY: 1/2 MILE SOUTH OF LAUNCHER

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	292	17.5
4300	295	18.0
4400	298	18.0
4500	296	17.5
4600	294	16.5
4700	294	18.0
4800	294	19.0
4900	294	19.0
5000	293	18.5
5100	294	19.5
5200	295	20.5
5300	296	21.5
5400	297	22.0
5500	299	23.0
5600	300	24.0
5700	298	26.0
5800	295	27.5
5900	294	28.0
6000	293	28.0
6100	290	28.5
6200	287	28.5
6300	283	29.0
6400	279	29.0
6500	278	29.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6600	277	29.5
6700	275	29.5
6800	273	29.5
6900	273	29.5
7000	272	29.0
7100	272	28.0
7200	271	27.0
7300	265	28.0
7400	258	29.0
7500	257	30.0
7600	255	31.0
7700	257	30.5
7800	259	30.0
7900	260	29.0
8000	260	28.0
8100	261	28.0
8200	261	27.5
8300	262	27.5
8400	263	27.0
8500	265	27.0
8600	267	26.5
8700	269	27.5
8800	271	28.0
8900	269	28.5

TABLE VI. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
9000	267	28.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
11400		

TABLE VI. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.



STATION ALTITUDE 3989.00 FEET MSL  
15 DEC. 78  
ASCENSION NO. 690

SIGNIFICANT LEVEL DATA  
3490020000  
WHITE SANDS  
TABLE VII.

GEODETTIC COORDINATES  
32-40043 LAT DEG  
106-37033 LONG DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
682.3	3989.0	3.8	-4.9	53.0
674.2	4235.1	3.0	-2.8	53.0
650.0	4365.5	4.7	-3.1	57.0
629.8	5601.3	6.0	-2.0	54.0
618.0	5990.2	5.0	-3.0	54.0
757.4	5703.8	7.0	-4.1	45.0
765.4	7810.9	7.5	-7.7	33.0
700.0	10203.2	2.1	-14.0	29.0
585.0	10754.0	1.8	-21.3	16.0
671.0	11325.8	3.5	-21.4	14.0
585.0	14290.7	-4.5	-25.0	17.0
556.2	15772.7	-5.4	-27.9	15.0
349.6	16540.9	-5.0	-29.1	13.0
500.0	19239.2	-8.3	-32.0	12.0
400.4	24125.5	-21.7	-41.9	14.0
400.0	24509.3	-22.5	-40.0	19.0
379.3	25731.2	-26.3	-35.3	42.0
370.4	25343.0	-27.0	-42.3	23.0
348.0	27773.9	-30.4	-42.9	28.0
330.0	31225.5	-39.1	-45.2	33.0
280.0	32724.9	-42.1		
250.0	35202.7	-48.5		
200.0	39076.1	-60.0		
172.8	42941.5	-66.0		
165.2	43641.0	-65.0		
150.0	45002.5	-59.4		
134.2	45002.0	-62.8		
124.4	45622.8	-62.8		
115.2	51111.2	-65.3		
100.0	55992.1	-67.4		

STATION ALTITUDE 3489.00 FEET MSL  
 15 DEC. 76  
 ASCENSION NO. 500  
 1600 HRS MSF

SIGNIFICANT LEVEL DATA  
 3490020300  
 WHITE SANDS  
 TABLE VII.

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
92.2	50545.7	-70.3		
31.0	50166.7	-65.3		
70.0	61021.1	-68.0		
61.2	63735.5	-69.3		
50.0	67704.2	-65.3		
41.8	71401.7	-61.4		
34.6	75152.0	-61.1		
30.0	75256.2	-57.5		
23.0	83703.3	-57.5		
20.0	86737.6	-53.4		
13.2	90301.6	-41.6		
11.7	90507.4	-37.2		



UPPER AIR DATA  
340020000  
WHITE SANDS

STATION ALTITUDE 5389.00 FEET MSL  
15 DEC. 78  
ASCENSION NO. 880

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37035 LONG DEG

TABLE VIII.

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup> METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
3959.0	352.3	3.3	53.0	1107.6	648.9	0	0	1.000268
4020.0	361.9	3.8	53.4	1107.4	648.9			1.000268
4080.0	365.6	4.0	50.9	1085.7	649.3			1.000266
4140.0	369.5	4.7	56.9	1062.7	650.1			1.000261
4200.0	373.9	5.7	54.6	1039.2	651.3			1.000250
4260.0	378.5	5.5	53.9	1020.3	651.2			1.000251
4320.0	383.5	6.5	47.6	998.3	652.3			1.000245
4380.0	388.7	7.1	41.8	970.3	652.9			1.000238
4440.0	394.3	7.4	36.4	959.0	653.1			1.000232
4500.0	400.0	7.1	32.7	943.3	652.7			1.000226
4560.0	405.3	5.9	31.8	929.7	651.3			1.000222
4620.0	410.2	4.2	31.0	913.3	650.0	297.1	15.4	1.000217
4680.0	415.6	3.7	30.2	903.2	648.3	291.4	18.5	1.000213
4740.0	420.3	2.6	29.3	890.2	647.2	288.0	21.3	1.000209
4800.0	425.2	1.9	28.0	873.9	646.4	280.4	23.2	1.000203
4860.0	430.3	2.5	22.0	857.0	647.0	277.0	24.4	1.000197
4920.0	435.6	3.1	15.1	840.0	647.7	267.3	23.5	1.000192
4980.0	440.0	2.0	14.1	827.4	645.4	262.3	23.3	1.000189
5040.0	444.7	.9	14.6	813.1	643.2	260.4	23.9	1.000186
5100.0	449.6	-0.2	15.0	802.9	643.9	274.0	24.1	1.000184
5160.0	454.7	-1.2	15.4	791.0	642.0	277.1	24.1	1.000181
5220.0	460.0	-2.3	15.8	779.2	641.3	275.4	23.4	1.000178
5280.0	465.6	-3.4	16.2	767.0	640.0	269.1	22.1	1.000175
5340.0	471.4	-4.5	16.6	753.2	638.7	262.3	21.8	1.000172
5400.0	477.2	-5.1	17.0	743.3	635.0	262.0	22.1	1.000172
5460.0	483.2	-5.3	15.7	729.0	637.7	262.0	24.6	1.000169
5520.0	489.3	-5.3	14.4	714.0	635.0	262.0	27.4	1.000166
5580.0	495.5	-5.0	13.1	702.7	633.3	262.0	31.0	1.000162
5640.0	501.7	-5.0	12.4	691.0	630.3	260.9	35.1	1.000159
5700.0	508.0	-6.3	12.6	679.4	625.7	260.3	37.1	1.000156
5760.0	514.2	-7.0	12.4				38.7	1.000154

AX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

GEOMETRIC ALTITUDE FMSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup> METER	SPEED OF SOUND METERS PER SECOND	WIND DIRECTION DEGREES (T)	WIND SPEED KNOTS	INDEX OF REFRACTION
13500.0	509.2	-7.7	-31.9	12.2	660.0	634.9	260.0	39.7	1.000151
14000.0	499.4	-8.4	-32.6	12.0	656.9	634.0	261.7	40.6	1.000148
14500.0	489.4	-9.7	-33.5	12.2	647.0	632.4	263.5	41.6	1.000146
20000.0	479.7	-11.0	-34.4	12.4	637.5	630.9	264.9	42.5	1.000144
20500.0	470.2	-12.3	-35.3	12.6	627.7	629.3	266.1	43.3	1.000141
21000.0	460.8	-13.6	-36.2	12.8	616.5	627.7	268.5	44.7	1.000139
21500.0	451.6	-14.9	-37.1	13.0	609.1	626.2	269.0	46.3	1.000137
22000.0	442.6	-16.2	-38.0	13.2	600.0	624.6	269.6	47.8	1.000135
22500.0	433.6	-17.5	-38.9	13.4	591.0	623.0	269.6	49.2	1.000133
23000.0	425.2	-18.3	-39.8	13.6	582.2	621.4	269.5	50.0	1.000131
23500.0	416.7	-20.1	-40.7	13.6	573.6	619.6	269.4	50.5	1.000129
24000.0	408.5	-21.4	-41.7	14.0	565.1	618.2	269.9	50.9	1.000127
24500.0	400.2	-22.8	-40.0	13.9	556.7	616.5	261.7	51.3	1.000125
25000.0	391.9	-24.2	-37.4	23.1	546.2	614.6	259.5	52.0	1.000124
25500.0	383.8	-25.6	-35.8	37.3	539.9	613.0	257.3	52.9	1.000122
26000.0	375.8	-26.9	-37.9	34.1	531.4	611.5	250.5	54.4	1.000120
26500.0	368.0	-27.9	-42.3	23.5	522.6	610.1	250.7	56.4	1.000117
27000.0	360.3	-28.3	-42.5	25.3	513.7	608.9	257.3	58.4	1.000115
27500.0	352.7	-29.9	-42.7	27.0	504.9	607.7	259.9	60.5	1.000113
28000.0	345.2	-31.0	-43.3	23.3	496.5	606.5	261.5	61.8	1.000111
28500.0	337.8	-32.2	-44.2	29.1	488.3	604.7	262.6	61.3	1.000110
29000.0	330.5	-33.5	-45.1	29.6	480.3	603.1	264.3	60.3	1.000108
29500.0	323.4	-34.8	-46.0	30.5	472.3	601.5	266.8	57.6	1.000106
30000.0	316.4	-36.0	-46.9	31.2	464.6	600.0	269.6	56.0	1.000104
30500.0	309.6	-37.3	-47.8	31.9	457.2	598.4	272.8	59.0	1.000102
31000.0	303.0	-39.5	-49.8	32.7	449.5	596.6	275.7	62.3	1.000101
31500.0	296.4	-39.6	-51.4	27.0**	442.1	595.3	278.7	67.3	1.000099
32000.0	289.8	-40.5	-56.6	16.0**	434.2	594.0	261.4	72.5	1.000097
32500.0	283.4	-41.7	-55.2	4.9**	426.5	592.8	234.7	75.3	1.000095
33000.0	277.1	-42.3	-55.2		419.1	591.3	267.6	78.3	1.000093

\*\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3490.00 FEET MSL  
 15 DEC. 78 1000 HRS NST  
 ASCENSION NO. 800

UPPER AIR DATA  
 3490020000  
 WHITE SANDS

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TL)	SPEED KNOTS	INDEX OF REFRACTION
33500.0	270.9	-44.1		411.9	569.7	263.0	82.9	1.000092
34000.0	264.8	-45.3		404.9	568.0	269.0	87.6	1.000090
34500.0	258.3	-46.6		398.0	566.4	269.0	93.0	1.000089
35000.0	253.0	-47.8		391.2	564.8	289.0	98.5	1.000087
35500.0	247.2	-49.1		384.3	563.2	283.5	101.3	1.000086
36000.0	241.4	-50.3		377.4	561.6	269.2	104.2	1.000084
36500.0	235.9	-51.5		370.6	560.0	289.0	105.1	1.000083
37000.0	230.3	-52.7		363.9	570.4	267.0	105.8	1.000081
37500.0	224.9	-54.0		357.4	570.8	267.3	107.1	1.000080
38000.0	219.6	-55.2		351.0	575.2	269.7	108.5	1.000078
38500.0	214.5	-56.4		344.7	573.0	260.0	109.2	1.000077
39000.0	209.5	-57.6		338.5	571.9	260.0	109.1	1.000075
39500.0	204.6	-58.8		332.3	570.3	260.0	109.3	1.000074
40000.0	199.8	-60.0		326.0	568.7	260.4	110.1	1.000073
40500.0	194.9	-61.1		320.1	567.4	263.5	111.0	1.000071
41000.0	190.2	-62.1		313.8	566.0	267.0	112.1	1.000070
41500.0	185.5	-63.1		307.7	564.0	267.2	113.2	1.000069
42000.0	181.0	-64.1		301.0	563.0	260.0	105.9	1.000067
42500.0	176.5	-65.1		295.7	561.9	264.5	97.9	1.000066
43000.0	172.3	-66.0		289.7	560.7	262.1	89.7	1.000065
43500.0	168.0	-66.0		282.0	560.7	270.0	81.2	1.000063
44000.0	163.9	-65.5		274.9	561.4	274.0	73.0	1.000061
44500.0	159.9	-65.3		266.1	563.7	270.9	72.6	1.000059
45000.0	156.0	-62.1		257.0	566.0	267.7	72.5	1.000057
45500.0	152.2	-60.4		249.3	568.2	263.2	73.0	1.000056
46000.0	148.6	-59.7		242.5	569.2	263.7	73.9	1.000054
46500.0	145.0	-60.4		237.4	560.2	262.2	74.8	1.000053
47000.0	141.5	-61.2		232.5	567.2	261.5	74.8	1.000052
47500.0	138.1	-61.9		227.7	560.2	261.1	74.6	1.000051
48000.0	134.7	-62.7		223.0	565.2	260.7	74.5	1.000050



UPPER AIR DATA  
 3490020000  
 WHITE SANDS

STATION ALTITUDE 3489.00 FEET MSL  
 15 DEC. 73  
 ASCENSION NO. 800

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup> METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
4350.0	131.5	-62.8		217.7	565.0	261.1	75.0	1.000043
4900.0	129.3	-62.8		212.4	565.0	261.4	75.5	1.000047
4950.0	129.2	-62.9		207.3	565.0	261.7	75.0	1.000046
5000.0	122.1	-63.7		203.0	565.9	261.7	73.0	1.000045
5050.0	119.1	-64.5		199.1	562.4	261.0	70.9	1.000044
5100.0	116.2	-65.9		195.3	560.8	260.8	65.5	1.000043
5150.0	113.3	-66.4		191.0	560.1	259.0	58.6	1.000043
5200.0	110.5	-66.5		186.4	559.9	257.2	53.9	1.000042
5250.0	107.8	-66.8		182.0	559.3	255.4	50.4	1.000041
5300.0	105.1	-67.0		177.0	559.3	254.7	49.8	1.000040
5350.0	102.5	-67.2		173.4	559.1	253.1	51.5	1.000039
5400.0	100.0	-67.4		169.3	558.8	253.3	52.9	1.000038
5450.0	97.5	-68.3		165.8	557.6	253.2	52.9	1.000037
5500.0	95.0	-69.2		162.3	556.3	253.1	52.9	1.000036
5550.0	92.8	-70.1		159.0	555.1	254.9	52.4	1.000035
5600.0	90.3	-69.5		154.5	555.9	253.9	49.0	1.000034
5650.0	88.1	-68.5		150.0	557.3	252.7	45.6	1.000033
5700.0	85.9	-67.6		145.0	558.0	251.9	42.4	1.000032
5750.0	83.8	-66.6		141.3	559.9	251.7	39.4	1.000031
5800.0	81.7	-65.6		137.1	561.2	251.5	36.5	1.000031
5850.0	79.7	-65.6		133.7	561.2	252.5	35.6	1.000030
5900.0	77.7	-66.1		130.7	560.8	253.0	35.0	1.000029
5950.0	75.8	-66.5		127.7	560.0	254.0	35.1	1.000029
6000.0	73.9	-67.0		124.9	559.4	255.2	36.4	1.000028
6050.0	72.1	-67.5		124.1	558.7	255.7	37.8	1.000027
6100.0	70.3	-67.9		119.3	558.1	256.7	39.3	1.000027
6150.0	68.5	-68.2		116.5	557.7	258.1	40.9	1.000026
6200.0	66.8	-68.4		113.7	557.4	259.3	42.6	1.000025
6250.0	65.2	-68.7		111.0	557.1	262.4	43.0	1.000025
6300.0	63.5	-68.9		108.4	556.7	265.6	43.2	1.000024

UPPER AIR DATA  
 3400020000  
 WHITE SANDS

STATION ALTITUDE 3439.00 FEET MSL  
 15 DEC. 78  
 ASCENSION NO. 000

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC MLTER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TD)	SPEED KNOTS	INDEX OF REFRACTION
03500.0	61.9	-69.2		105.6	550.4	269.2	43.5	1.000024
04000.0	60.4	-69.0		103.1	550.6	272.3	40.6	1.000023
04500.0	58.9	-68.5		100.3	557.3	270.0	37.9	1.000022
05000.0	57.4	-68.0		97.6	557.9	279.7	34.9	1.000022
05500.0	56.0	-67.5		94.9	550.6	281.6	29.5	1.000021
06000.0	54.6	-67.1		92.3	559.3	284.2	24.1	1.000021
06500.0	53.3	-66.6		89.6	560.0	287.0	19.6	1.000020
07000.0	52.0	-66.1		87.4	560.6	287.4	17.2	1.000019
07500.0	50.7	-65.6		85.0	561.3	287.6	14.9	1.000019
08000.0	49.4	-65.0		82.7	562.0	287.7	13.6	1.000018
08500.0	48.2	-64.5		80.3	562.7	289.0	14.1	1.000018
09000.0	47.0	-64.0		78.4	563.4	289.0	14.6	1.000017
09500.0	45.9	-63.4		76.3	564.2	284.6	14.8	1.000017
70000.0	44.8	-62.9		74.2	564.9	283.6	14.5	1.000017
70500.0	43.7	-62.4		72.2	565.0	282.0	14.2	1.000016
71000.0	42.6	-61.8		70.3	566.3	281.1	14.2	1.000016
71500.0	41.5	-61.4		68.4	566.9	279.2	14.9	1.000015
72000.0	40.6	-61.4		66.6	567.0	277.4	15.6	1.000015
72500.0	39.6	-61.3		65.2	567.0	275.5	16.6	1.000014
73000.0	38.7	-61.3		63.6	567.1	273.0	18.3	1.000014
73500.0	37.7	-61.2		62.0	567.1	272.1	20.0	1.000014
74000.0	36.8	-61.2		60.5	567.2	270.1	21.7	1.000013
74500.0	35.9	-61.2		59.1	567.2	267.1	23.4	1.000013
75000.0	35.1	-61.1		57.3	567.3	264.5	25.3	1.000013
75500.0	34.2	-60.7		56.1	567.3	262.1	27.1	1.000013
76000.0	33.4	-60.1		54.7	566.6	259.3	28.4	1.000012
76500.0	32.6	-59.5		53.2	569.4	256.8	29.9	1.000012
77000.0	31.6	-58.9		51.3	570.2	254.5	31.3	1.000012
77500.0	31.1	-58.4		50.4	571.0	254.1	30.6	1.000011
78000.0	30.3	-57.9		49.1	571.7	253.7	30.0	1.000011



GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

UPPER AIR DATA  
 3490020800  
 WHITE SANDS

STATIC ALTITUDE 3489.00 FEET MSL  
 15 DEC. 78  
 ASCENSION NO. 800

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup> METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
76500.0	29.6	-57.5		47.9	572.1	253.3	29.4	1.000011
79000.0	29.9	-57.5		46.7	572.1	253.2	26.6	1.000010
79500.0	28.2	-57.5		45.0	572.1	253.0	23.6	1.000010
80000.0	27.6	-57.5		44.3	572.1	261.5	20.6	1.000010
80500.0	26.9	-57.5		43.5	572.1	265.3	18.6	1.000010
81000.0	26.3	-57.5		42.3	572.1	269.5	17.0	1.000009
81500.0	25.7	-57.5		41.5	572.1	274.4	15.5	1.000009
82000.0	25.1	-57.5		40.5	572.1	277.2	15.4	1.000009
82500.0	24.5	-57.5		39.5	572.1	273.7	18.2	1.000009
83000.0	23.9	-57.5		38.0	572.1	271.1	21.0	1.000009
83500.0	23.3	-57.5		37.7	572.1	269.1	23.8	1.000008
84000.0	22.8	-57.2		36.7	572.5	260.1	26.6	1.000008
84500.0	22.2	-56.5		35.0	573.4	263.4	29.4	1.000008
85000.0	21.7	-55.8		34.0	574.3	261.2	32.3	1.000008
85500.0	21.2	-55.1		33.9	575.2	259.7	34.6	1.000008
86000.0	20.7	-54.4		33.0	576.2	253.6	36.0	1.000007
86500.0	20.2	-53.7		32.1	577.1	250.0	37.4	1.000007
87000.0	19.8	-53.1		31.3	578.0	257.2	38.9	1.000007
87500.0	19.3	-52.4		30.3	578.8	253.4	41.6	1.000007
88000.0	18.9	-51.8		29.7	579.7	259.5	44.4	1.000007
88500.0	18.5	-51.1		29.0	580.3	263.5	47.2	1.000006
89000.0	18.0	-50.5		28.2	581.4	262.1	49.5	1.000006
89500.0	17.6	-49.8		27.5	582.2	264.0	51.2	1.000006
90000.0	17.2	-49.2		26.0	583.0	263.9	53.0	1.000006
90500.0	16.8	-48.5		26.1	583.9	269.1	54.8	1.000006
91000.0	16.5	-47.9		25.5	584.7	272.0	55.2	1.000006
91500.0	16.1	-47.2		24.0	585.0	274.9	55.4	1.000006
92000.0	15.7	-46.6		24.2	586.4	277.8	55.8	1.000005
92500.0	15.4	-45.9		23.0	587.3	280.4	56.6	1.000005
93000.0	15.0	-45.3		23.0	588.1	282.3	58.6	1.000005

STATION ALTITUDE 3989.00 FEET MSL  
15 DEC. 78  
ASCENSION NO. 000

UPPER AIR DATA  
349000Z000  
WHITE SANDS

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup> METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
95500.0	14.7	-44.6		22.4	568.9	284.0	60.6	1.000005
94000.0	14.4	-44.0		21.8	569.8	283.7	62.6	1.000005
94500.0	14.0	-43.3		21.3	590.0	280.5	65.5	1.000005
93000.0	13.7	-42.7		20.7	591.4	280.9	68.7	1.000005
95500.0	13.4	-42.0		20.2	592.3	287.3	71.9	1.000004
96000.0	13.1	-41.3		19.7	593.2			1.000004
95000.0	12.8	-40.5		19.2	594.2			1.000004
97000.0	12.5	-39.8		18.7	595.2			1.000004
97500.0	12.3	-39.0		18.2	596.2			1.000004
98000.0	12.0	-38.2		17.8	597.2			1.000004
98500.0	11.7	-37.4		17.3	598.2			1.000004

STATION ALTITUDE 3989.00 FEET MSL  
 15 DEC. 78  
 ASCENSION NO. 800

MAIN SIGNIFICANT LEVEL DATA  
 349002000  
 WHITE SANDS  
 TABLE IX.

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	WIND DATA		E-W MPS	DEW PT DEG C	TEMPERATURE		PRESSURE MILLIBARS
		SPEED MPS	N-S MPS			AIR DEG C		
2989.	9999.**	9999.**	-9999.**	-9999.**	99	-37.3	1.170+1	
2900.	288.	30.	-11.	30.	99	-41.0	1.320+1	
2832.	258.	20.	4.	19.	99	-53.4	2.000+1	
2742.	267.	13.	1.	13.	99	-57.5	2.300+1	
2575.	254.	15.	4.	15.	99	-57.5	3.000+1	
2282.	264.	13.	1.	13.	99	-61.1	3.480+1	
2168.	280.	8.	-1.	7.	99	-61.4	4.180+1	
2056.	268.	7.	-2.	7.	99	-65.3	5.000+1	
1936.	271.	22.	-0.	22.	99	-69.3	6.120+1	
1855.	257.	20.	5.	20.	99	-68.0	7.000+1	
1767.	252.	19.	6.	18.	99	-65.3	8.100+1	
1689.	255.	27.	7.	26.	99	-70.3	9.220+1	
1641.	255.	27.	7.	20.	99	-67.4	1.000+2	

19 \*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.



STATION ALTITUDE 3489.00 FEET MSL  
15 DEC. 78  
ASCENSION NO. 800

MANDATORY LEVELS  
3490020000  
WHITE SANDS  
TABLE X.

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4982.	4.7	-3.1	57.	9999.0	9999.0XX
800.0	6011.	6.8	-3.9	40.	9999.0	9999.0XX
750.0	6352.	6.3	-9.1	32.	9999.0	9999.0XX
700.0	10193.	2.1	-14.0	29.	276.2	24.0
650.0	12157.	1.7	-22.4	15.	263.0	24.1
600.0	14255.	-2.9	-24.9	16.	272.5	21.9
550.0	16501.	-5.0	-29.0	13.	262.0	21.7
500.0	18943.	-8.3	-32.6	12.	261.0	40.6
450.0	21390.	-15.1	-37.2	13.	260.9	40.7
400.0	24463.	-22.8	-40.0	19.	261.7	51.3
350.0	27630.	-30.2	-42.6	28.	260.5	61.2
300.0	31163.	-39.1	-49.2	33.	277.0	64.4
250.0	35130.	-48.5			266.8	59.9
200.0	39880.	-60.0			286.4	110.1
175.0	42590.	-65.5			283.9	93.3
150.0	45379.	-59.4			204.4	73.5
125.0	49393.	-62.8			201.7	75.0
100.0	53520.	-67.4			255.3	52.9
80.0	58224.	-65.5			262.2	35.8
70.0	60872.	-68.0			256.9	39.5
60.0	63901.	-68.4			273.0	40.1
50.0	67511.	-65.3			266.1	13.8
40.0	72010.	-61.3			270.0	13.9
30.0	77903.	-57.5			253.6	29.8
25.0	81631.	-57.5			277.2	15.4
20.0	86333.	-53.4			257.7	30.0
15.0	92523.	-45.2			262.1	58.3

XX AND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3489.00 FEET NSL  
15 DEC. 73 1000 HRS MSF  
ASCENSION I.O. 800

MPN MANDATORY LEVELS  
349002000  
WHITE SANDS

GEODETIC COORDINATES  
32.40043 LAT DEG  
106.37033 LON DEG

GEOPOTENTIAL ALTITUDE METERS	DIRECTION DEG (T.I.)	SPEED MPS	WIND DATA		E-W MPS	DEW PT DEF DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS				AIR DEG C		
2620.	232.	30.	-6.		29.	99	-45.2		1.500+1
2632.	258.	20.	4.		19.	99	-53.4		2.000+1
2490.	277.	0.	-1.		0.	99	-57.5		2.500+1
2373.	254.	15.	4.		15.	99	-57.5		3.000+1
2195.	276.	0.	-1.		0.	99	-61.3		4.000+1
2058.	268.	7.	-2.		7.	99	-65.3		5.000+1
1946.	273.	21.	-1.		21.	99	-68.9		6.000+1
1853.	257.	20.	5.		20.	99	-68.0		7.000+1
1775.	252.	10.	6.		10.	99	-65.5		8.000+1
1641.	255.	27.	7.		20.	99	-67.4		1.000+2
1505.	262.	39.	6.		30.	99	-62.8		1.250+2
1392.	264.	30.	4.		30.	99	-59.4		1.500+2
1290.	264.	49.	-12.		40.	99	-65.5		1.750+2
1216.	286.	57.	-16.		54.	99	-60.0		2.000+2
1072.	239.	51.	-17.		49.	99	-48.5		2.500+2
950.	277.	30.	-4.		33.	10	-39.1		3.000+2
842.	261.	31.	5.		31.	13	-30.2		3.500+2
740.	262.	20.	4.		20.	17	-22.8		4.000+2
650.	266.	24.	2.		24.	22	-15.1		4.500+2
577.	262.	21.	3.		21.	24	-8.3		5.000+2
503.	263.	10.	2.		10.	24	-5.0		5.500+2
434.	272.	14.	-0.		11.	22	-2.9		6.000+2
371.	263.	12.	2.		12.	24	1.7		6.500+2
311.	276.	12.	-2.		12.	16	2.1		7.000+2
250.	9999.**	9999.**	-9999.**		-9999.**	15	6.3		7.500+2
201.	9999.**	9999.**	-9999.**		-9999.**	11	6.8		8.000+2
152.	9999.**	9999.**	-9999.**		-9999.**	08	4.7		8.500+2

\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3951.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 125

SIGNIFICANT LEVEL DATA  
3490050125  
APACHE  
TABLE XI.

GEODETIC COORDINATES  
32.62700 LAT DEG  
106.39352 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE		REL. HUM. PERCENT
584.8	3951.4	6.8	-1.1	57.0
550.0	5029.8	4.5	-4.7	51.0
520.0	5773.4	5.7	-4.4	48.0
513.5	6209.3	7.6	-3.3	46.0
500.4	6446.5	7.3	-4.4	43.0
793.7	6875.6	7.5	-4.0	42.0
719.4	9518.0	4.0	-10.6	33.0
700.0	10246.3	2.5	-9.1	42.0
632.4	10923.5	3.2	-21.7	14.0
655.2	12003.7	2.0	-22.6	14.0
585.6	14940.6	-5.3	-23.0	22.0
544.0	15810.1	-6.3	-28.0	15.0
512.9	18352.9	-7.7	-30.5	14.0
500.0	18997.8	-9.0	-30.6	15.0
435.0	22425.3	-18.0	-28.3	40.0
400.0	24511.0	-23.8	-29.9	57.0
382.0	25624.1	-25.5	-45.0	14.0
375.4	26039.6	-26.2	-41.1	23.0
312.2	30319.6	-38.5	-49.5	30.0
300.0	31216.9	-41.0		
294.8	31608.1	-41.2		
250.0	35232.2	-49.2		
225.2	37407.4	-53.6		
200.0	39946.7	-59.7		
162.0	44191.0	-69.3		
153.2	44600.5	-67.3		
154.0	45200.6	-63.3		
150.0	45734.0	-63.2		
145.4	45309.5	-60.5		
123.3	49712.1	-66.0		



STATION ALTITUDE 3951.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 125

SIGNIFICANT LEVEL DATA  
3490050125  
APACHE

GEODETIC COORDINATES  
32.62700 LAT DEG  
106.39352 LON DEG

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
117.4	50697.6	-64.2	
110.6	51894.7	-66.8	
100.0	53901.3	-67.3	
94.8	54900.3	-68.6	
85.4	57043.2	-65.0	
70.0	61017.4	-67.9	
59.0	67740.7	-65.3	
30.0	73208.5	-57.7	
24.0	62848.2	-59.4	
23.1	63648.2	-55.0	
20.0	60717.6	-51.8	
15.2	92716.3	-43.7	
13.8	94809.5	-43.2	
12.4	97202.3	-38.1	
11.5	99002.1	-38.0	

STATION ALTITUDE 3951.40 FEET MSL  
 15 DEC. 78  
 ASCENSION NO. 125

UPPER AIR DATA  
 3490050125  
 APACHE  
 TABLE XII.

GEODETIC COORDINATES  
 32.02700 LAT DEG  
 106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TIR) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
3951.4	684.8	6.8	57.0	1096.4	652.6	30.0	1.9	1.000272
4000.0	863.2	6.7	56.7	1096.8	652.5			1.000271
4500.0	860.9	5.6	53.9	1081.0	651.2			1.000265
5000.0	850.9	4.6	51.2	1065.4	649.8			1.000259
5500.0	835.2	5.3	49.1	1043.1	650.7			1.000254
6000.0	819.8	6.7	47.0	1018.5	652.4			1.000249
6500.0	804.8	7.3	42.9	997.0	653.1			1.000243
7000.0	790.0	7.3	41.6	979.2	653.1			1.000239
7500.0	775.5	6.7	39.9	963.6	652.3			1.000234
8000.0	761.2	6.0	38.2	948.2	651.5			1.000229
8500.0	747.2	5.3	36.5	933.1	650.7			1.000224
9000.0	733.4	4.7	34.8	918.2	649.9			1.000219
9500.0	719.9	4.0	33.1	903.5	649.0	282.4	18.2	1.000215
10000.0	706.5	3.0	30.0	889.8	647.9	281.7	20.6	1.000213
10500.0	693.4	2.8	31.5	874.5	647.5	280.7	23.3	1.000206
11000.0	680.4	3.1	14.0	857.5	647.7	279.6	25.7	1.000196
11500.0	667.7	2.6	14.0	843.2	647.1	278.5	27.1	1.000193
12000.0	655.3	2.0	14.0	829.2	646.4	278.7	27.8	1.000190
12500.0	642.9	.8	15.4	817.1	645.0	275.1	28.1	1.000187
13000.0	630.7	-5	16.7	803.3	643.5	273.3	27.9	1.000184
13500.0	618.8	-1.7	18.1	793.7	642.0	271.9	27.5	1.000182
14000.0	607.0	-3.0	19.4	782.2	640.6	270.9	26.9	1.000179
14500.0	595.6	-4.2	20.8	771.0	639.1	269.3	26.0	1.000177
15000.0	584.3	-5.3	21.4	759.5	637.7	267.3	25.0	1.000174
15500.0	573.0	-5.6	19.9	745.7	637.7	265.0	25.4	1.000170
16000.0	562.0	-5.9	18.0	732.1	637.1	262.7	26.3	1.000167
16500.0	551.2	-6.1	16.2	718.8	636.7	262.2	27.3	1.000163
17000.0	540.6	-6.3	14.9	705.9	636.3	262.4	28.3	1.000160
17500.0	530.1	-6.9	14.6	693.5	635.8	262.5	30.1	1.000157
18000.0	519.9	-7.4	14.2	681.2	635.2	262.7	32.3	1.000154
						262.5	35.6	

AX 4100 DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3951.40 FEET MSL  
15 DEC. 76  
ASCENSION NO. 125

UPPER AIR DATA  
3490000125  
APACHE

GEODETIC COORDINATES  
32.02700 LAT DEG  
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
18500.0	509.9	-8.0	14.2	669.6	634.5	261.8	39.4	1.000152
19000.0	500.0	-9.0	15.0	659.1	633.3	263.2	42.0	1.000149
19500.0	490.1	-10.3	18.7	649.0	631.7	264.0	44.3	1.000147
20000.0	480.4	-11.5	22.3	639.6	630.1	267.4	45.8	1.000146
20500.0	470.9	-12.9	26.0	630.1	628.0	269.9	47.4	1.000144
21000.0	461.6	-14.3	29.6	620.8	627.0	270.5	48.9	1.000142
21500.0	452.4	-15.6	33.3	611.6	625.4	271.0	50.3	1.000140
22000.0	443.5	-16.9	36.9	602.5	623.6	269.0	51.3	1.000139
22500.0	434.7	-18.2	40.6	593.6	622.2	268.3	52.4	1.000136
23000.0	425.8	-19.6	44.7	584.7	620.5	268.0	53.7	1.000134
23500.0	417.2	-21.0	48.7	576.0	618.8	264.9	55.1	1.000132
24000.0	408.7	-22.4	52.8	567.4	617.1	262.3	56.5	1.000130
24500.0	400.3	-23.7	56.8	558.9	615.4	259.3	57.9	1.000128
25000.0	392.1	-24.5	58.3	549.2	614.4	259.9	59.4	1.000124
25500.0	384.0	-25.3	18.6	539.7	613.4	254.1	60.9	1.000121
26000.0	376.0	-26.1	22.1	530.2	612.3	254.4	62.1	1.000119
26500.0	368.0	-27.5	23.8	521.9	610.6	250.1	61.2	1.000117
27000.0	360.2	-29.0	24.6	513.8	608.0	259.0	58.8	1.000115
27500.0	352.5	-30.4	25.4	505.6	607.0	261.7	57.6	1.000113
28000.0	345.0	-31.3	26.2	496.0	605.2	264.2	56.8	1.000112
28500.0	337.7	-33.3	27.0	490.3	603.4	265.0	56.9	1.000110
29000.0	330.5	-34.7	27.8	482.8	601.0	268.8	57.1	1.000108
29500.0	323.4	-36.1	28.7	475.3	599.8	269.1	55.7	1.000106
30000.0	316.5	-37.6	29.5	468.1	598.0	269.0	54.5	1.000105
30500.0	309.7	-39.0	24.0**	460.8	596.1	272.8	56.2	1.000103
31000.0	302.9	-40.4	7.2**	453.4	594.4	273.3	56.1	1.000101
31500.0	296.2	-41.1		444.0	593.4	279.0	63.1	1.000099
32000.0	289.0	-42.1		435.6	592.2	282.8	68.2	1.000097
32500.0	283.1	-43.2		428.0	590.8	285.8	73.3	1.000096
33000.0	276.7	-44.3		421.2	589.4	289.5	78.5	1.000094

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.



STATION ALTITUDE 3951.40 FEET MSL  
15 DEC. 76  
ASCENSION NO. 125

UPPER AIR DATA  
3490050125  
APACHE

GEODETIC COORDINATES  
32.62700 LAT DEG  
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
33500.0	270.5	-45.4		413.7	566.0	290.4	82.5	1.000092
34000.0	264.4	-46.5		406.4	566.5	292.2	86.6	1.000091
34500.0	258.5	-47.6		399.2	585.1	292.2	90.0	1.000089
35000.0	252.7	-48.7		392.1	583.7	292.2	93.3	1.000087
35500.0	246.9	-49.7		385.0	582.3	290.8	96.3	1.000086
36000.0	241.2	-50.7		377.7	581.0	289.3	99.5	1.000084
36500.0	235.6	-51.7		370.6	579.7	288.0	103.8	1.000083
37000.0	230.2	-52.7		363.7	578.5	286.6	108.3	1.000081
37500.0	224.8	-53.7		356.9	577.1	285.7	112.7	1.000079
38000.0	219.5	-54.9		350.4	575.5	284.9	116.9	1.000078
38500.0	214.3	-56.1		344.1	573.9	284.8	116.0	1.000077
39000.0	209.3	-57.4		337.9	572.3	284.7	115.0	1.000075
39500.0	204.3	-58.6		331.6	570.6	283.2	109.2	1.000074
40000.0	199.5	-59.8		325.7	569.0	283.7	103.3	1.000073
40500.0	194.6	-61.0		319.4	567.5	283.8	100.9	1.000071
41000.0	189.8	-62.1		313.3	566.0	283.9	99.4	1.000070
41500.0	185.2	-63.2		307.2	564.5	283.7	99.1	1.000068
42000.0	180.6	-64.3		301.3	562.9	283.3	100.3	1.000067
42500.0	176.2	-65.5		295.5	561.4	283.0	101.5	1.000066
43000.0	171.9	-66.6		289.9	559.9	283.8	101.9	1.000065
43500.0	167.7	-67.7		284.3	558.4	282.2	102.1	1.000063
44000.0	163.5	-68.9		278.9	556.8	273.9	102.1	1.000062
44500.0	159.5	-68.0		270.8	556.0	273.6	102.0	1.000060
45000.0	155.5	-64.8		260.1	562.4	273.4	100.6	1.000058
45500.0	151.7	-63.2		251.8	564.4	270.4	97.5	1.000056
46000.0	148.1	-62.1		244.4	566.0	267.8	93.8	1.000054
46500.0	144.5	-60.7		230.9	567.2	266.1	89.8	1.000053
47000.0	140.9	-61.5		232.0	566.7	264.2	84.0	1.000052
47500.0	137.5	-62.4		227.3	565.9	263.6	60.7	1.000051
48000.0	134.2	-63.2		222.6	564.5	263.0	77.3	1.000050

STATION ALTITUDE 3951.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 125

UPPER AIR DATA  
3490050125  
APACHE

GEODETIC COORDINATES  
32.62700 LAT DEG  
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
48500.0	130.9	-64.0		216.0	563.4	262.9	75.7	1.000049
49000.0	127.7	-64.8		213.0	562.3	263.0	74.8	1.000048
49500.0	124.0	-65.7		209.2	561.2	262.9	74.1	1.000047
50000.0	121.5	-65.5		203.9	561.4	262.4	73.6	1.000045
50500.0	116.6	-64.6		198.0	562.7	262.0	73.2	1.000044
51000.0	115.6	-64.9		193.4	562.3	261.0	72.9	1.000043
51500.0	112.6	-65.9		189.0	560.8	260.1	72.7	1.000042
52000.0	110.0	-66.8		185.6	559.0	259.2	72.6	1.000041
52500.0	107.3	-67.0		181.3	559.4	259.4	72.6	1.000040
53000.0	104.6	-67.1		176.9	559.3	257.6	72.6	1.000039
53500.0	102.0	-67.2		172.0	559.1	257.5	72.6	1.000038
54000.0	99.5	-67.4		168.5	558.8	257.3	72.5	1.000038
54500.0	97.0	-68.0		164.0	557.9	257.3	72.9	1.000037
55000.0	94.6	-68.5		161.1	557.3	257.3	73.2	1.000036
55500.0	92.3	-67.7		156.4	556.4	257.4	72.8	1.000035
56000.0	90.0	-66.8		151.9	559.6	257.6	71.8	1.000034
56500.0	87.8	-65.9		147.5	560.8	257.7	70.7	1.000033
57000.0	85.6	-65.1		143.3	562.0	257.0	66.2	1.000032
57500.0	83.5	-65.3		139.9	561.6	256.2	61.7	1.000031
58000.0	81.4	-65.7		136.7	561.1	254.6	56.0	1.000030
58500.0	79.4	-66.1		133.6	560.0	251.7	49.3	1.000030
59000.0	77.4	-66.4		130.3	560.1	247.9	42.8	1.000029
59500.0	75.5	-66.3		127.0	559.6	245.0	38.6	1.000028
60000.0	73.7	-67.2		124.6	559.1	245.2	34.7	1.000028
60500.0	71.8	-67.5		121.7	558.0	244.7	31.2	1.000027
61000.0	70.1	-67.9		118.9	558.2	243.2	28.5	1.000026
61500.0	68.3	-67.7		115.9	558.4	240.1	25.9	1.000026
62000.0	66.6	-67.5		112.9	558.0	230.0	22.4	1.000025
62500.0	65.0	-67.3		110.0	558.9	232.5	18.8	1.000024
63000.0	63.4	-67.1		107.2	559.2	237.0	15.6	1.000024

STATION ALTITUDE 3951.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 125

UPPER AIR DATA  
3490050125  
APACHE

GEODETIC COORDINATES  
32.02700 LAT DEG  
106.39352 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES C	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	61.6	-66.3		104.4	559.4	272.2	13.2	1.000023
64000.0	60.3	-66.7		101.8	559.7	260.0	12.2	1.000023
64500.0	58.8	-66.6		99.2	560.0	302.9	13.0	1.000022
65000.0	57.4	-66.4		96.6	560.2	309.7	14.9	1.000022
65500.0	55.9	-66.2		94.1	560.5	302.6	18.5	1.000021
66000.0	54.6	-66.0		91.7	560.7	297.1	22.3	1.000020
66500.0	53.2	-65.8		89.4	561.0	287.4	27.3	1.000020
67000.0	51.9	-65.6		87.1	561.3	280.9	32.9	1.000019
67500.0	50.6	-65.4		84.9	561.5	275.4	37.8	1.000019
68000.0	49.4	-65.1		82.7	561.9	273.0	42.4	1.000018
68500.0	48.2	-64.7		80.5	562.4	270.5	46.7	1.000018
69000.0	47.0	-64.4		78.3	562.9	269.7	48.8	1.000017
69500.0	45.9	-64.0		76.4	563.4	269.0	51.0	1.000017
70000.0	44.8	-63.7		74.5	563.9	269.0	50.3	1.000017
70500.0	43.7	-63.3		72.5	564.4	269.4	47.6	1.000016
71000.0	42.6	-62.9		70.7	564.8	269.6	45.1	1.000016
71500.0	41.6	-62.6		68.9	565.3	270.1	38.1	1.000015
72000.0	40.6	-62.2		67.1	565.8	270.6	31.2	1.000015
72500.0	39.6	-61.8		65.3	566.3	270.5	24.4	1.000015
73000.0	38.7	-61.5		63.7	566.8	269.3	17.8	1.000014
73500.0	37.7	-61.1		62.0	567.3	268.5	11.2	1.000014
74000.0	36.8	-60.8		60.4	567.8	267.5	7.0	1.000013
74500.0	36.0	-60.4		58.9	568.2	269.3	5.2	1.000013
75000.0	35.1	-60.0		57.3	568.7	269.7	4.5	1.000013
75500.0	34.2	-59.7		55.9	569.2	199.9	5.3	1.000012
76000.0	33.4	-59.3		54.4	569.7	191.9	6.7	1.000012
76500.0	32.6	-58.9		53.0	570.2	190.3	8.0	1.000012
77000.0	31.8	-58.6		51.7	570.7	193.1	8.5	1.000012
77500.0	31.1	-58.2		50.3	571.1	211.0	8.6	1.000011
78000.0	30.3	-57.9		49.0	571.6	222.8	9.3	1.000011



STATION ALTITUDE 3451.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 125

UPPER AIR DATA  
3490000125  
APACHE

GEODETIC COORDINATES  
32.62700 LAT DEG  
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
76500.0	29.6	-57.8		47.9	571.7	244.0	11.4	1.000011
79000.0	28.9	-58.0		46.8	571.4	260.2	15.4	1.000010
79500.0	28.2	-53.2		45.7	571.2	269.3	20.2	1.000010
80000.0	27.5	-53.4		44.6	571.0	272.6	23.9	1.000010
80500.0	26.9	-53.5		43.6	570.7	274.1	27.0	1.000010
81000.0	26.2	-58.7		42.6	570.5	275.3	30.1	1.000009
81500.0	25.6	-58.9		41.6	570.2	274.1	32.2	1.000009
82000.0	25.0	-59.1		40.7	570.0	272.0	33.9	1.000009
82500.0	24.4	-59.3		39.6	569.7	270.2	35.6	1.000009
83000.0	23.8	-58.6		38.7	570.7	267.5	38.9	1.000009
83500.0	23.3	-55.8		37.3	574.3	264.9	42.6	1.000008
84000.0	22.7	-54.6		36.2	573.9	262.6	46.6	1.000008
84500.0	22.2	-54.1		35.3	570.6	261.4	49.0	1.000008
85000.0	21.7	-53.6		34.4	577.3	260.1	51.1	1.000008
85500.0	21.2	-53.1		33.5	577.9	259.0	53.2	1.000007
86000.0	20.7	-52.5		32.7	576.6	258.6	50.9	1.000007
86500.0	20.2	-52.0		31.8	579.3	258.4	47.6	1.000007
87000.0	19.7	-51.4		31.0	580.1	258.1	44.8	1.000007
87500.0	19.3	-50.7		30.2	581.0	257.9	41.3	1.000007
88000.0	18.9	-50.1		29.5	581.9	257.0	37.6	1.000007
88500.0	18.4	-49.4		28.7	582.8	256.2	34.0	1.000006
89000.0	18.0	-48.7		28.0	583.6	257.3	33.4	1.000006
89500.0	17.6	-48.0		27.3	584.3	256.9	33.6	1.000006
90000.0	17.2	-47.4		26.6	585.3	260.4	33.8	1.000006
90500.0	16.8	-46.7		25.9	586.3	264.6	34.9	1.000006
91000.0	16.4	-46.0		25.2	587.4	269.3	36.6	1.000006
91500.0	16.1	-45.3		24.6	588.0	273.3	38.5	1.000005
92000.0	15.7	-44.7		23.9	588.9	277.0	40.1	1.000005
92500.0	15.4	-44.0		23.2	589.7	280.1	41.7	1.000005
93000.0	15.0	-43.6		22.8	590.2	283.0	43.4	1.000005

STATION ALTITUDE 3951.40 FEET MSL 15 DEC. 78 ASCENSION NO. 125			UPPER AIR DATA 3490050123 APACHE		GEODETIC COORDINATES 32.62700 LAT DEG 106.39352 LON DEG			
GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TR)	SPEED KNOTS	INDEX OF REFRACTION
93500.0	14.7	-43.5		22.3	590.4	285.5	45.6	1.000005
94000.0	14.3	-43.4		21.3	590.3	287.5	48.2	1.000005
94500.0	14.0	-43.3		21.3	590.7	289.4	50.9	1.000005
95000.0	13.7	-42.9		20.8	591.1	291.6	53.8	1.000005
95500.0	13.4	-41.9		20.2	592.5	294.0	56.8	1.000005
96000.0	13.1	-40.8		19.7	593.8	296.2	60.0	1.000004
96500.0	12.8	-39.8		19.2	595.2			1.000004
97000.0	12.6	-38.7		18.7	596.3			1.000004
97500.0	12.3	-38.1		18.2	597.3			1.000004
98000.0	12.0	-33.1		17.8	597.3			1.000004
98500.0	11.8	-38.0		17.4	597.4			1.000004
99000.0	11.5	-38.0		17.0	597.4			1.000004

STATION ALTITUDE 3951.40 FEET MSL  
 15 DEC. 78  
 ASCENSION NO. 125

MRN SIGNIFICANT LEVEL DATA  
 3490050125  
 APACHE  
 TABLE XIII.

GEODETIC COORDINATES  
 32.62700 LAT DEG  
 106.39352 LON DEG

GEOPOTENTIAL ALTITUDE METERS	DIRECTION DEG (TR)	SPEED MPS	WIND DATA		LEW PT DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS	E-W MPS		AIR DEG C		
3002.	9999.**	9999.**	-9999.**	-9999.**	99	-38.0	1.150+1	
2950.	9999.**	9999.**	-9999.**	-9999.**	99	-38.1	1.240+1	
2877.	291.	27.	-10.	25.	99	-43.2	1.380+1	
2812.	281.	22.	-4.	21.	99	-43.7	1.520+1	
2631.	256.	24.	5.	23.	99	-51.8	2.000+1	
2538.	264.	23.	2.	22.	99	-55.0	2.310+1	
2514.	268.	19.	1.	19.	99	-59.4	2.400+1	
2374.	224.	5.	3.	4.	99	-57.7	3.000+1	
2057.	275.	21.	-2.	21.	99	-65.3	5.000+1	
1854.	240.	15.	6.	15.	99	-67.9	7.000+1	
1730.	257.	34.	6.	33.	99	-65.0	8.540+1	
1670.	257.	30.	8.	37.	99	-68.6	9.480+1	
1630.	257.	37.	8.	30.	99	-67.3	1.000+2	

\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.



STATION ALTITUDE 3951.40 FEET MSL  
 15 DEC. 76  
 ASCENSION NO. 125  
 MANDATORY LEVELS  
 3490050125  
 APACHE  
 TABLE XIV.  
 GEODETIC COORDINATES  
 32.02700 LAT DEG  
 106.39352 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5020.	4.5	-4.7	51.	9999.0	9999.0XX
800.0	6657.	7.4	-4.5	42.	9999.0	9999.0XX
750.0	8395.	5.5	-8.1	37.	9999.0	9999.0XX
700.0	10230.	2.5	-9.1	42.	280.1	24.5
650.0	12202.	1.5	-22.0	13.	274.3	28.0
600.0	14295.	-3.7	-23.2	20.	268.1	25.4
550.0	16530.	-6.2	-27.8	16.	262.4	20.4
500.0	18971.	-9.0	-30.8	15.	263.2	41.9
450.0	21612.	-15.9	-28.0	34.	270.6	50.6
400.0	24481.	-23.8	-29.9	57.	259.4	58.0
350.0	27642.	-30.9	-44.1	20.	262.0	57.3
300.0	31155.	-41.0			277.4	60.1
250.0	35150.	-49.2			291.6	94.6
200.0	39851.	-59.7			285.6	104.2
175.0	42531.	-65.8			284.9	101.8
150.0	45612.	-63.2			269.0	96.3
125.0	49297.	-65.5			263.0	74.2
100.0	53737.	-67.3			257.3	72.5
90.0	58104.	-65.0			252.3	51.6
70.0	60310.	-67.9			246.2	20.6
50.0	63360.	-66.7			289.7	12.5
50.0	67489.	-65.3			274.9	39.7
40.0	71992.	-62.0			270.9	20.0
30.0	77679.	-57.7			226.7	9.6
25.0	81642.	-59.1			272.2	33.8
20.0	86317.	-51.8			258.3	40.8
15.0	92554.	-43.6			262.3	43.2

.. AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

AX WIND DATA INVALID DUE TO MISSING MAX AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3951.40 FEET MSL  
 15 DEC. 76 1057 HRS MST  
 ASCENSION NO. 125

MRN MANDATORY LEVELS  
 3490050125  
 APACHE  
 TABLE XV.

GEODETIC COORDINATES  
 32.62700 LAT DEG  
 106.39352 LONG DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	DIRECTION DEG (TN)	SPEED MPS	WIND DATA		E-W MPS	DEW PT DEG C	TEMPERATURE		PRESSURE MILLIBARS
			N-S MPS				AIR DEG C		
2821.	283.	22.	-5.		22.	99	-43.6		1.500+1
2831.	258.	24.	5.		24.	99	-51.8		2.000+1
2488.	272.	17.	-1.		17.	99	-59.1		2.500+1
2374.	227.	5.	3.		4.	99	-57.7		3.000+1
2194.	271.	14.	-0.		14.	99	-62.0		4.000+1
2057.	275.	20.	-2.		20.	99	-65.3		5.000+1
1940.	290.	0.	-2.		0.	99	-66.7		6.000+1
1854.	246.	15.	0.		15.	99	-67.9		7.000+1
1773.	253.	27.	8.		25.	99	-66.0		8.000+1
1630.	257.	37.	8.		33.	99	-67.3		1.000+2
1503.	263.	38.	5.		36.	99	-65.5		1.250+2
1390.	269.	50.	1.		50.	99	-63.2		1.500+2
1297.	285.	52.	-13.		51.	99	-65.8		1.750+2
1215.	286.	54.	-14.		52.	99	-59.7		2.000+2
1072.	292.	49.	-18.		45.	99	-49.2		2.500+2
950.	277.	31.	-4.		31.	99	-41.0		3.000+2
847.	263.	29.	4.		29.	13	-30.9		3.500+2
746.	259.	30.	5.		29.	06	-23.8		4.000+2
659.	271.	23.	-0.		20.	12	-15.9		4.500+2
573.	263.	22.	3.		21.	22	-9.0		5.000+2
504.	262.	15.	2.		14.	22	-6.2		5.500+2
436.	268.	13.	0.		13.	19	-3.7		6.000+2
372.	274.	14.	-1.		14.	24	1.5		6.500+2
312.	280.	15.	-2.		12.	12	2.5		7.000+2
250.	9999.**	9999.**	-9999.**		-9999.**	14	5.5		7.500+2
203.	9999.**	9999.**	-9999.**		-9999.**	12	7.4		8.000+2
153.	9999.**	9999.**	-9999.**		-9999.**	09	4.5		8.500+2

\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATIC ALTITUDE 4010.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 50

SIGNIFICANT LEVEL DATA  
3490220050  
NW 30  
TABLE XVI.

GEODETIC COORDINATES  
32.88497 LAT DEG  
106.49714 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
681.5	4010.4	2.9	66.0
679.2	4079.8	2.1	74.0
674.2	4231.9	4.7	60.0
650.0	4956.4	6.6	52.0
624.0	5824.2	6.6	48.0
604.6	6469.0	8.6	38.0
775.8	7467.1	7.6	35.0
737.6	8215.7	4.4	42.0
707.0	10213.9	3.9	24.0
682.4	10841.5	2.3	21.0
655.4	11962.5	2.3	11.0
561.8	13695.0	-5.2	15.0
529.6	17513.2	-7.1	12.0
521.6	17903.7	-6.5	11.0
507.0	18966.7	-8.2	11.0
446.8	21820.7	-15.2	13.0
400.0	24562.3	-22.6	5.0
352.6	27538.3	-29.4	37.0
304.4	30933.1	-34.3	26.0
200.0	31264.5	-39.7	
257.0	35242.8	-47.8	
200.0	40628.6	-58.6	
179.0	42396.4	-64.1	
166.4	43767.1	-64.8	
156.4	44765.4	-61.8	
150.0	45673.5	-61.0	
147.0	46244.9	-59.5	
125.0	49613.7	-62.9	
121.6	50175.2	-61.8	
111.4	51943.9	-66.6	



STATION ALTITUDE 4010.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 50

SIGNIFICANT LEVEL DATA  
3490220050  
NW 30

GEODETIC COORDINATES  
32.58497 LAT DEG  
106.49714 LONG DEG

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	DEWPOINT DEGREES	REL. HUM. PERCENT
MILLIBARS	MSL FEET		CENTIGRADE	
104.6	5310.4	-67.4		
100.0	5407.4	-65.3		
95.2	5500.8	-67.3		
92.0	5570.2	-64.8		
80.0	5859.8	-62.5		
70.0	6120.2	-66.6		
65.4	6269.2	-69.0		
59.0	6447.0	-67.9		
50.0	6730.4	-66.2		
45.6	6970.3	-59.7		
40.0	7251.2	-61.5		
30.0	7851.5	-56.2		
29.0	7925.0	-55.6		
21.9	8512.1	-58.0		
20.0	8702.1	-54.1		
14.6	9305.6	-44.4		

GEODLTIC COORDINATES  
32.88497 LAT DEG  
106.49714 LONG DEG

UPPER AIR DATA  
3490220050  
NW 30  
TABLE XVII.

STATION ALTITUDE 4010.40 FEET MSL  
15 DEC. 78  
ASCENSION 10. 50 1000 HRS MST

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES (TN)	SPEED M/SEC	INDEX OF REFRACTION
4010.4	361.5	2.9	68.0	1110.0	640.0	0.0	0.0	1.000273
4500.0	865.5	5.4	57.2	1080.1	650.9			1.000266
5000.0	849.6	6.6	51.9	1055.0	652.3			1.000260
5500.0	834.0	6.6	49.5	1035.2	652.3			1.000254
6000.0	813.7	7.1	45.3	1015.3	652.9			1.000248
6500.0	803.7	6.6	37.9	991.6	654.5			1.000241
7000.0	789.0	6.1	35.4	975.0	653.9			1.000236
7500.0	774.6	7.5	35.2	959.7	653.2			1.000231
8000.0	750.3	6.3	37.9	940.0	651.9			1.000225
8500.0	746.3	5.1	40.4	932.5	650.5			1.000225
9000.0	732.5	4.3	39.6	916.1	649.5			1.000221
9500.0	719.0	4.2	37.2	901.9	649.2			1.000214
10000.0	705.6	4.0	26.8	886.0	648.9			1.000208
10500.0	692.5	3.2	22.7	872.1	648.0			1.000203
11000.0	679.6	2.3	20.0	858.6	648.0			1.000199
11500.0	666.9	2.3	15.3	842.9	648.0			1.000193
12000.0	654.5	2.2	11.0	827.5	648.6			1.000188
12500.0	642.1	1.3	11.5	814.0	648.5			1.000185
13000.0	629.9	.4	12.0	801.9	644.4			1.000182
13500.0	618.0	-.6	12.5	789.4	643.3			1.000180
14000.0	600.3	-1.5	13.0	777.2	642.2			1.000177
14500.0	594.8	-2.4	13.5	765.1	641.1			1.000174
15000.0	583.6	-3.3	14.0	753.2	640.0			1.000171
15500.0	572.5	-4.3	14.5	741.5	638.9			1.000169
16000.0	561.7	-5.2	15.0	730.0	637.8			1.000166
16500.0	550.9	-5.3	14.0	717.5	627.1			1.000163
17000.0	540.3	-6.5	13.0	705.5	636.3			1.000160
17500.0	529.9	-7.1	12.0	693.6	635.6			1.000157
18000.0	519.5	-6.7	11.0	679.1	635.1			1.000153
18500.0	509.6	-7.4	11.0	667.9	635.1			1.000151

AX AND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

UPPER AIR DATA  
3490220050  
NW 30

STATION ALTITUDE 4010.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 50

GEODETIC COORDINATES  
32.88497 LAT DEG  
106.49714 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES JENPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup> METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OR REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
19000.0	499.7	-8.2	11.0	657.0	634.2			1.000148
19500.0	489.9	-9.5	11.4	647.1	632.7			1.000146
20000.0	480.3	-10.7	11.7	637.4	631.2			1.000144
20500.0	470.8	-11.9	12.1	627.8	629.7			1.000141
21000.0	461.6	-13.2	12.4	618.4	628.2			1.000139
21500.0	452.5	-14.4	12.8	609.1	626.7			1.000137
22000.0	443.5	-15.7	13.4	600.0	625.2			1.000135
22500.0	434.6	-17.1	13.9	590.9	623.0			1.000134
23000.0	425.8	-18.4	14.4	582.1	621.9			1.000133
23500.0	417.2	-19.8	14.9	573.3	620.5			1.000131
24000.0	408.6	-21.1	15.4	564.8	619.0			1.000129
24500.0	400.3	-22.5	16.4	556.4	617.0			1.000128
25000.0	392.2	-23.7	16.6	547.4	615.5			1.000125
25500.0	384.1	-24.8	16.0	538.5	614.1			1.000123
26000.0	376.1	-25.9	15.3	529.8	612.7			1.000120
26500.0	368.3	-27.1	14.7	521.2	611.2			1.000118
27000.0	360.7	-28.2	14.0	512.7	609.0			1.000116
27500.0	353.2	-29.3	13.4	504.5	606.4			1.000114
28000.0	345.6	-30.5	12.8	496.3	603.8			1.000112
28500.0	338.2	-31.9	12.1	488.3	601.1			1.000110
29000.0	331.0	-33.2	11.4	480.3	600.5			1.000108
29500.0	323.9	-34.5	10.6	472.0	601.0			1.000105
30000.0	316.2	-35.9	9.9	463.2	600.1			1.000104
30500.0	310.1	-37.2	9.2	457.5	598.5			1.000102
31000.0	303.5	-38.0	8.5	450.7	595.7			1.000101
31500.0	296.7	-40.2	7.8	443.7	594.0			1.000099
32000.0	290.1	-41.2	7.1	436.7	593.3			1.000097
32500.0	283.6	-42.2	6.4	427.8	592.1			1.000095
33000.0	277.3	-43.2	5.7	420.1	590.8			1.000094
33500.0	271.1	-44.2	5.0	412.5	589.5			1.000092

\*\* AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.  
AX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.



GEODETIC COORDINATES  
 32.88497 LAT DEG  
 106.49714 LON DEG

UPPER AIR DATA  
 3490220050  
 NW 30

STATION ALTITUDE 4010.40 FEET MSL  
 15 DEC. 78  
 ASCENSION 10.0. 50  
 1000 HRS MST

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
34000.0	265.0	-45.2		405.1	500.2	265.0	66.9	1.000090
34500.0	259.1	-46.2		397.0	586.9	265.0	65.3	1.000089
35000.0	253.3	-47.2		390.0	565.0	260.2	64.0	1.000087
35500.0	247.6	-48.3		383.5	584.2	260.6	63.5	1.000085
36000.0	241.9	-49.4		376.9	582.7	267.3	63.3	1.000084
36500.0	236.2	-50.6		369.6	581.2	260.1	66.5	1.000082
37000.0	230.7	-51.7		362.9	579.7	260.0	69.6	1.000081
37500.0	225.3	-52.8		356.3	578.3	260.2	69.8	1.000079
38000.0	220.1	-54.0		349.8	576.8	267.0	70.0	1.000078
38500.0	214.9	-55.1		343.4	575.3	260.9	69.3	1.000076
39000.0	209.9	-56.3		337.2	573.7	260.2	66.5	1.000075
39500.0	205.0	-57.4		331.1	572.2	264.2	68.6	1.000074
40000.0	200.3	-58.5		325.1	570.7	261.8	72.0	1.000072
40500.0	195.4	-59.7		319.0	569.1	259.5	74.4	1.000071
41000.0	190.7	-61.0		313.1	567.5	257.1	73.7	1.000070
41500.0	185.1	-62.2		307.3	565.9	254.0	73.2	1.000068
42000.0	181.6	-63.4		301.6	564.2	257.1	71.1	1.000067
42500.0	177.2	-64.2		295.4	563.1	259.8	69.0	1.000066
43000.0	172.9	-64.4		289.5	562.8	262.4	69.2	1.000064
43500.0	168.6	-64.7		281.8	562.5	264.5	72.0	1.000063
44000.0	164.5	-64.1		274.1	563.3	260.4	74.9	1.000061
44500.0	160.5	-62.6		265.5	563.3	267.5	77.8	1.000059
45000.0	156.6	-61.6		257.9	560.0	260.1	80.8	1.000057
45500.0	152.8	-61.3		251.2	567.1	260.7	83.7	1.000056
46000.0	149.1	-60.6		244.4	560.0	271.0	85.3	1.000054
46500.0	145.5	-59.7		237.3	569.2	270.3	86.9	1.000053
47000.0	142.0	-60.2		232.4	568.5	275.7	88.6	1.000052
47500.0	138.6	-60.7		227.3	567.6	273.3	91.2	1.000051
48000.0	135.3	-61.2		222.4	567.1	260.8	94.0	1.000050
48500.0	132.0	-61.9		217.5	565.4	263.3	96.7	1.000048

GEODETIC COORDINATES  
32.88497 LAT DEG  
106.49714 LON DEG

UPPER AIR DATA  
3490220J55  
NW 30

STATION ALTITUDE 4010.40 FEET MSL  
15 DEC. 78 1000 HRS MST  
ASCENSION NO. 50

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM <sup>3</sup> METER	SPEED OF SOUND M/SEC	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
49070.0	123.8	-62.3		212.6	565.7	200.1	99.3	1.000047
49500.0	123.7	-62.8		203.2	565.0	280.7	102.1	1.000046
50000.0	122.7	-62.1		202.5	565.9	290.3	106.7	1.000045
50500.0	119.7	-62.7		190.1	565.2	291.7	112.3	1.000044
51000.0	119.7	-64.0		194.5	565.4	292.8	117.9	1.000043
51500.0	113.9	-65.4		190.9	561.5	292.4	124.5	1.000043
52000.0	111.1	-66.6		187.4	559.8	291.9	131.0	1.000042
52500.0	108.3	-67.0		183.0	559.4	291.3	134.3	1.000041
53000.0	105.6	-67.3		170.6	559.0	290.0	135.9	1.000040
53500.0	103.0	-66.6		173.8	559.8	289.8	137.9	1.000039
54000.0	100.5	-65.5		168.0	561.4	283.9	141.0	1.000038
54500.0	98.0	-66.1		164.9	560.5	287.9	144.1	1.000037
55000.0	95.6	-67.1		161.6	559.2	287.5	147.1	1.000036
55500.0	93.2	-65.5		156.0	561.0	287.2	150.0	1.000035
56000.0	90.9	-64.6		151.5	562.0	285.9	152.9	1.000034
56500.0	88.7	-64.2		147.9	563.1	287.3	150.2	1.000033
57000.0	86.6	-63.9		144.0	563.7	287.7	147.2	1.000032
57500.0	84.4	-63.4		140.2	564.2	283.1	143.8	1.000031
58000.0	82.4	-63.0		130.6	564.6	283.5	138.0	1.000030
58500.0	80.4	-62.8		133.0	565.3	283.9	132.2	1.000030
59000.0	78.4	-63.1		130.1	564.6	283.6	126.1	1.000029
59500.0	76.5	-63.9		127.3	563.0	287.5	119.4	1.000028
60000.0	74.6	-64.6		124.7	562.0	280.0	112.7	1.000028
60500.0	72.8	-65.4		122.1	561.5	283.6	105.7	1.000027
61000.0	71.0	-66.2		119.5	560.5	283.0	98.6	1.000027
61500.0	69.3	-67.0		117.0	559.4	273.7	92.0	1.000026
62000.0	67.5	-67.9		114.6	558.2	272.3	86.3	1.000026
62500.0	65.9	-68.8		112.2	557.0	269.9	81.1	1.000025
63000.0	64.2	-69.3		109.5	555.7	267.1	76.0	1.000024
63500.0	62.6	-69.5		106.6	557.3	263.3	72.5	1.000024

STATION ALTITUDE 4010.40 FEET MSL  
15 DEC. 78  
ASCENSION NO. 30

UPPER AIR DATA  
3490220050  
NR 30

GEODETIC COORDINATES  
32.86497 LAT DEG  
106.49714 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TH)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
04000.0	61.1	-63.2		103.3	557.7	264.5	70.0	1.000023
04500.0	59.5	-67.9		101.0	559.1	263.6	67.6	1.000023
05000.0	58.1	-67.6		96.4	553.3	262.3	66.0	1.000022
05500.0	56.6	-67.4		95.9	550.8	260.6	65.0	1.000021
06000.0	55.2	-67.2		93.4	559.1	259.2	64.1	1.000021
06500.0	53.9	-66.9		91.0	559.5	258.0	63.5	1.000020
07000.0	52.5	-66.7		86.6	559.0	257.0	63.3	1.000020
07500.0	51.2	-66.4		86.3	560.1	255.0	63.0	1.000019
08000.0	50.0	-66.1		84.1	560.5	253.6	63.7	1.000019
08500.0	48.7	-64.3		81.3	563.0	255.9	65.1	1.000018
09000.0	47.6	-62.5		78.6	565.4	256.1	66.4	1.000018
09500.0	46.4	-60.7		76.1	567.9	250.6	68.6	1.000017
10000.0	45.3	-59.9		74.0	569.0	257.4	71.3	1.000016
10500.0	44.2	-60.2		72.3	565.5	250.1	74.1	1.000016
11000.0	43.1	-60.5		70.7	565.1	258.4	77.3	1.000016
11500.0	42.1	-60.8		69.1	567.7	258.5	80.8	1.000015
12000.0	41.1	-61.1		67.5	567.2	253.6	84.4	1.000015
12500.0	40.1	-61.5		66.0	566.9	250.7	87.8	1.000015
13000.0	39.1	-61.1		64.3	567.3	256.2	89.3	1.000014
13500.0	38.2	-60.7		62.0	567.9	257.7	90.8	1.000014
14000.0	37.3	-60.2		61.0	563.5	257.3	92.3	1.000014
14500.0	36.4	-59.8		59.5	569.1	257.6	92.3	1.000013
15000.0	35.5	-59.3		57.9	569.7	253.5	90.8	1.000013
15500.0	34.7	-53.9		56.4	570.3	259.5	89.4	1.000013
16000.0	33.9	-58.4		55.0	570.9	260.5	87.9	1.000012
16500.0	33.1	-53.0		53.5	571.4	261.6	82.3	1.000012
17000.0	32.3	-57.6		52.2	572.0	263.0	76.4	1.000012
17500.0	31.5	-57.1		50.8	572.6	264.6	70.6	1.000011
18000.0	30.6	-55.7		49.5	573.2	263.1	63.8	1.000011
18500.0	30.0	-50.2		46.2	573.8	263.5	55.3	1.000011



GEODETIC COORDINATES  
 32.86497 LAT DEG  
 106.49714 LONG DEG

UPPER AIR DATA  
 3490220050  
 NW 30

STATION ALTITUDE 4010.40 FEET MSL  
 15 DEC. 76  
 ASCENSION NO. 50

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
79000.0	29.3	-55.8		47.0	574.4	261.2	46.9	1.000010
79500.0	28.6	-55.7		45.9	574.3	258.0	38.5	1.000010
80000.0	26.0	-55.9		44.6	574.2	254.1	35.0	1.000010
80500.0	27.3	-56.1		43.2	573.9	249.9	33.2	1.000010
81000.0	26.7	-56.3		42.8	573.7	245.4	31.7	1.000010
81500.0	26.0	-56.5		41.9	573.4	240.4	30.4	1.000009
82000.0	25.4	-56.7		40.9	573.1	236.6	30.5	1.000009
82500.0	24.8	-56.9		40.0	572.9	238.1	31.1	1.000009
83000.0	24.2	-57.1		39.1	572.8	237.7	31.7	1.000009
83500.0	23.7	-57.3		38.2	572.3	237.2	32.2	1.000008
84000.0	23.1	-57.5		37.3	572.0	238.7	31.6	1.000008
84500.0	22.6	-57.7		36.5	571.8	241.0	30.6	1.000008
85000.0	22.0	-58.0		35.7	571.5	243.5	29.6	1.000008
85500.0	21.5	-57.2		34.7	572.5	240.1	28.7	1.000008
86000.0	21.0	-56.2		33.7	573.8	252.3	28.5	1.000008
86500.0	20.5	-55.2		32.8	575.2	259.8	28.9	1.000007
87000.0	20.0	-54.2		31.9	576.5	268.6	29.8	1.000007
87500.0	19.6	-53.4		31.0	577.5	273.1	31.1	1.000007
88000.0	19.1	-52.7		30.2	578.7	277.4	31.9	1.000007
88500.0	18.7	-52.0		29.4	579.3	280.7	32.4	1.000007
89000.0	18.3	-51.3		28.7	580.3	283.9	33.0	1.000006
89500.0	17.9	-50.5		27.9	581.2	288.9	33.7	1.000006
90000.0	17.4	-49.9		27.2	582.1	287.9	34.1	1.000006
90500.0	17.0	-49.2		26.5	583.0	287.1	34.1	1.000006
91000.0	16.7	-48.5		25.8	584.0	286.4	34.0	1.000006
91500.0	16.3	-47.6		25.2	584.9	285.6	34.0	1.000006
92000.0	15.9	-47.0		24.5	585.8			1.000005
92500.0	15.5	-46.3		23.9	586.7			1.000005
93000.0	15.2	-45.6		23.3	587.6			1.000005
93500.0	14.8	-44.9		22.7	588.5			1.000005

STATION ALTITUDE 4010.40 FEET MSL  
 15 DEC. 78 1000 HRS PST  
 ASCENSION NO. 50

MRN SIGNIFICANT LEVEL DATA  
 3490220050  
 1000 HRS  
 TABLE XVIII.

GEODETIC COORDINATES  
 32.88497 LAT DEG  
 106.49714 LONG DEG

GEOPOTENTIAL ALTITUDE GEOMETRICALS	DIRECTION DEG (TN)	SPEED KPS	WIND DATA HLC NPS	CTN NPS	Dew PT DLP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
2847.	9999.**	9999.**	-9999.**	-9999.**	99	-44.4	1.460+1
2841.	207.	15.	1.	15.	99	-54.1	2.000+1
2583.	244.	15.	7.	14.	99	-58.0	2.190+1
2405.	2.	22.	4.	22.	99	-55.0	2.900+1
2383.	263.	20.	3.	26.	99	-56.2	3.000+1
2203.	259.	45.	9.	44.	99	-61.5	4.000+1
2118.	257.	30.	8.	35.	99	-59.7	4.580+1
2004.	256.	30.	6.	32.	99	-60.2	5.000+1
1958.	264.	35.	4.	33.	99	-67.9	5.960+1
1903.	269.	41.	1.	41.	99	-69.0	6.540+1
1802.	278.	49.	-6.	40.	99	-66.6	7.000+1
1780.	289.	67.	-22.	04.	99	-62.5	8.000+1
1694.	287.	70.	-23.	75.	99	-64.8	9.200+1
1674.	267.	70.	-23.	72.	99	-67.3	9.520+1
1044.	289.	70.	-23.	69.	99	-65.3	1.000+2

\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 4010.40 FEET MSL

15 DEC 73

ASCENSION NO. 55

MANDATORY LEVELS

3490220050

10 30

TABLE XIX.

GEOCENTRIC COORDINATES

12.35497 LAT DEG

106.49714 LON. DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
250.0	4980.	6.6	-2.5	52.	9999.0XX	9999.0XX
800.0	6320.	8.4	-5.2	30.	9999.0XX	9999.0XX
750.0	6352.	5.5	-7.1	40.	9999.0XX	9999.0XX
700.0	10204.	3.9	-14.8	24.	9999.0XX	9999.0XX
650.0	12169.	1.9	-25.2	11.	9999.0XX	9999.0XX
600.0	14271.	-2.0	-26.4	13.	9999.0XX	9999.0XX
550.0	16522.	-5.9	-29.1	14.	9999.0XX	9999.0XX
500.0	18951.	-8.2	-33.4	11.	9999.0XX	9999.0XX
450.0	21011.	-14.8	-37.0	11.	9999.0XX	9999.0XX
400.0	24493.	-22.6	-27.3	65.	40.8	40.8
350.0	27663.	-29.8	-39.9	30.	250.7	30.6
300.0	31190.	-39.7			253.3	49.2
250.0	35217.	-47.8			260.3	83.7
200.0	39934.	-58.6			261.8	72.6
175.0	42643.	-64.3			261.2	65.1
150.0	45750.	-61.0			270.3	84.9
125.0	49470.	-62.9			269.1	102.6
100.0	53910.	-65.3			260.7	141.4
75.0	58403.	-62.5			288.9	131.4
50.0	61052.	-66.6			277.8	95.1
25.0	64110.	-68.0			264.0	60.5
00.0	67720.	-66.2			255.7	63.6
	72257.	-61.5			253.3	87.9
	76101.	-56.2			263.5	50.6
	81993.	-56.9			250.3	30.9
	86031.	-54.1			200.5	29.8
	92009.	-45.2				

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

AX WIND DATA INVALID DUE TO MISSING PPM AZIMUTH AND ELEVATION ANGLES.



STATION ALTITUDE 4010.40 FEET MSL  
 15 DEC. 70  
 ASCENSION NO. 50

MRN NAUTICAL LEVELS  
 3400200050  
 1000 MGS PST

GEODETIC COORDINATES  
 32.00497 LAT DEG  
 106.49714 LONG DEG

TABLE XX.

GEOPOTENTIAL ALTITUDE METERS	DIRECTION DEG (T.W)	SPEED MPS	WIND DATA N-S MPS	L-W MPS	UCW PI DEP DEG C	TEMPERATURE		PRESSURE MILLIBARS
						AIR DEG C		
2829.	9999.**	9999.**	-9999.**	-9999.**	99	-45.2		1.500+1
2841.	267.	10.	1.	10.	99	-54.1		2.000+1
2899.	230.	10.	2.	14.	99	-56.9		2.500+1
2883.	264.	29.	3.	20.	99	-56.2		3.000+1
2803.	259.	40.	9.	44.	99	-61.5		4.000+1
2864.	256.	33.	0.	22.	99	-66.2		5.000+1
1954.	264.	35.	4.	30.	99	-68.0		6.000+1
1802.	278.	49.	-7.	40.	99	-66.6		7.000+1
1780.	289.	60.	-22.	64.	99	-62.5		8.000+1
1644.	289.	70.	-23.	69.	99	-65.3		1.000+2
1500.	269.	50.	-17.	50.	99	-62.9		1.250+2
1395.	270.	44.	-0.	47.	99	-61.0		1.500+2
1300.	261.	30.	5.	30.	99	-64.3		1.750+2
1217.	262.	37.	5.	37.	99	-58.6		2.000+2
1073.	267.	30.	2.	30.	99	-47.6		2.500+2
951.	254.	25.	7.	24.	99	-39.7		3.000+2
843.	259.	10.	3.	10.	10	-29.8		3.500+2
747.	276.	25.	-3.	20.	00	-22.6		4.000+2
657.	9999.**	9999.**	-9999.**	-9999.**	22	-14.8		4.500+2
570.	9999.**	9999.**	-9999.**	-9999.**	23	-6.2		5.000+2
504.	9999.**	9999.**	-9999.**	-9999.**	23	-5.9		5.500+2
400.	9999.**	9999.**	-9999.**	-9999.**	24	-2.0		6.000+2
371.	9999.**	9999.**	-9999.**	-9999.**	27	1.9		6.500+2
311.	9999.**	9999.**	-9999.**	-9999.**	19	3.9		7.000+2
250.	9999.**	9999.**	-9999.**	-9999.**	13	5.5		7.500+2
200.	9999.**	9999.**	-9999.**	-9999.**	14	8.4		8.000+2
150.	9999.**	9999.**	-9999.**	-9999.**	09	6.6		8.500+2

\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW WIND DATA AND ELEVATION ANOMALIES.